

AMENDMENTS TO THE SPECIFICATION

Please delete the paragraphs on page 29, line 26 to page 30, line 12, and replace it with the following paragraph:

Also, methylated (dimethylated/trimethylated) lysine residues are assayed using anti-histone H3 (dimethyl/trimethyl lysine 9) antibody, etc., respectively, (i') in the case where the protein of the present invention is reacted with S-adenosyl-L-methionine wherein the methyl group is radio-labeled and histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii') in the case where the protein of the present invention is reacted with S-adenosyl-L-methionine wherein the methyl group is radio-labeled and histone protein or a polypeptide having the N-terminal sequence of histone H3; in the presence of a test compound, whereby the compound or its salt that regulates (promotes or inhibits, preferably inhibits) the activities of the protein of the present invention is screened.

Furthermore, the reaction products obtained (i') in the case where the protein of the present invention is reacted with S-adenosyl-L-methionine wherein the methyl group is radio-labeled and histone protein or a polypeptide having the N-terminal sequence of histone H3 and (ii') in the case where the protein of the present invention is reacted with S-adenosyl-L-methionine wherein the methyl group is radio-labeled and histone protein or a polypeptide having the N-terminal sequence of histone H3; in the presence of a test compound, are appropriately purified and mass spectrometry is performed (using, e.g., TOF-MS, etc.). Thus, the compound or its salt that regulates (promotes or inhibits, preferably inhibits) the activities of the protein of the present invention is screened using as an indicator changes in molecular weight accompanied by methylation.